Name:

p1106: Solve by factoring (v10)

1. Solve the equation

$$x^2 - x - 42 = 0$$

$$(x-7)(x+6) = 0$$
$$x = -6$$
$$x = 7$$

2. Solve the equation

$$x^2 - 10x + 16 = 0$$

$$(x-2)(x-8) = 0$$
$$x = 8$$
$$x = 2$$

3. Solve the equation

$$6x^2 + 10x + 20 \;=\; 5x^2 - x + 2$$

$$x^2 + 11x + 18 = 0$$
$$(x+2)(x+9) = 0$$
$$x = -9$$
$$x = -2$$

4. Solve the equation

$$9x^2 + 13x + 31 \;=\; 8x^2 + x - 1$$

$$x^2 + 12x + 32 = 0$$
$$(x+4)(x+8) = 0$$
$$x = -8$$
$$x = -4$$

5. Solve the equation

$$7x^2 + 7x - 76 \;=\; 6x^2 + 8x - 4$$

$$x^2 - x - 72 = 0$$
$$(x+8)(x-9) = 0$$
$$x = 9$$
$$x = -8$$

6. Solve the equation

$$11x^2 - 58x + 15 = 0$$

$$(11x - 3)(x - 5) = 0$$
$$x = 5$$
$$x = \frac{3}{11}$$

7. Solve the equation

$$7x^2 - 58x - 45 = 0$$

$$(7x + 5)(x - 9) = 0$$
$$x = 9$$
$$x = \frac{-5}{7}$$

8. Solve the equation

$$6x^2 + 4x - 27 = x^2 - 9x + 1$$

$$5x^2 + 13x - 28 = 0$$
$$(5x - 7)(x + 4) = 0$$
$$x = -4$$
$$x = \frac{7}{5}$$

9. Solve the equation

$$8x^2 - 30x - 82 = 3x^2 + 6x - 1$$

$$5x^2 - 36x - 81 = 0$$
$$(5x + 9)(x - 9) = 0$$
$$x = 9$$
$$x = \frac{-9}{5}$$

10. Solve the equation

$$13x^2 + 40x - 49 = 2x^2 - 7x - 9$$

$$11x^2 + 47x - 40 = 0$$
$$(11x - 8)(x + 5) = 0$$
$$x = -5$$
$$x = \frac{8}{11}$$